UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,765	02/25/2002	Rajesh S. Pazhyannur	CE09105R	4402

			EXAMINER
22917	7590	01/10/2005	NGUYEN, TOAN D

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)	
Office Action Summary	10/082,765	PAZHYANNUR ET AL.	
	Examiner	Art Unit	
	Toan D Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 September 2004_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4,6-9 and 11-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4,6-9 and 11-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) ___ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _25 February 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

3.   Claims 1-4, 6-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sen et al. (U.S. 6,556,556) in view of McDermott (EP 1175034 A2)

further in view of Szabo (US 2002/0003779).

        For claims 1, 4 and 6, Sen et al. disclose method and system for limiting data

packet transmission within a digital mobile telephone communication network by

discarding unsuccessfully transmitted radio link protocol frames, comprising the steps

of:

(a) receiving plurality of higher-layer packets (figure 2, reference 21, col. 3 lines 23-26);

(d) multiplexing higher-layer packets (figure 2, reference 21) onto a lower-layer packet (figure 2, reference 23) (col. 3 lines 25-30); and

(e) transmitting the lower-layer packet (figure 2, reference 22, col. 3 lines 25-27).

Sen et al. do not disclose:

(b) determining an error rate of a transmission;

(c) determining a lower-layer packet size based on the error rate.

(d) the lower layer packet having size as determined in step (C).

In an analogous art, McDermott discloses:

(b) determining an error rate of a transmission (figure 5A, reference 120, page 5 col. 7 lines 51-53);

(c) determining a lower-layer packet size based on the error rate (page 2, col. 2 lines 18-21, and page 5 col. 8 lines 9-13); and

(d) the lower layer packet having size as determined in step (C) (page 4, col. 6 lines 39-44).

McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 5, col. 8 lines 9-13 as set forth in claim 4).

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the

error rate of a transmission as taught by McDermott in Sen et al.'s system with the

motivation being to provide a system that transmits image data or any other type of data

in packets by RF carrier where the packet size is adjusted responsive to bit error rate

(page 5, col. 7 lines 710).

However, Sen et al. in view of McDermott do not disclose wherein the step of

determining the lower-layer packet size comprises the step of determining an optimal

number of higher-layer packets that can be multiplexed onto a single lower-layer packet.

In an analogous art, Szabo discloses wherein the step of determining the lower-layer

packet size comprises the step of determining an optimal number of higher-layer

packets that can be multiplexed onto a single lower-layer packet (page 1, col. 1 lines

49-51).

Szabo discloses further wherein the step of multiplexing the higher-layer packets

onto the lower-layer packet comprises the step of multiplexing UDP/IP packets onto a

sing a PPP packet utilizing PPPmuxing techniques (page 1, col. 1 lines 49-51 as set

forth in claim 6).

One skilled in the art would have recognized the step of determining the

lower-layer packet size comprises the step of determining an optimal number of

higher-layer packets that can be multiplexed onto a single lower-layer packet to use the

teachings of Szabo in the system of Sen et al. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention, to use the step of determining

the lower-layer packet size comprises the step of determining an optimal number of

higher-layer packets that can be multiplexed onto a single lower-layer packet as taught

by Szabo in Sen et al.'s system with the motivation being transmitted over an IP core

network (page 1, col. 1 lines 50-51).

For claim 2, Sen et al. disclose wherein the step of receiving the plurality of

higher layer packets comprises the step of receiving the plurality of higher-layer packets

from a plurality of users (figure 1, references 11 a-c, col. 2 lines 60-64).

For claim 3, Sen et al, disclose wherein the step of receiving the plurality of

higherlayer packets comprises the step of receiving a plurality of higher-layer TCP/IP

packets (col. 3 lines 23-25).

For claims 7, 9 and 11, Sen et al. disclose method and system for limiting data

packet transmission within a digital mobile telephone communication network by

discarding unsuccessfully transmitted radio link protocol frames, comprising the steps

of:

receiving a plurality of UDP/IP packets (figure 2, reference 21) from a plurality of

users (figure 1, references 11 a-c, col. 3 lines 23-26); and

multiplexing the plurality of UDP/IP packets onto a PPP packet (col. 3 lines

25-30); and transmitting the PPP packet (figure 2, reference 22, col. 3 lines 25-27).

Sen et al. do not disclose:

determining an error rate;

determining a PPP packet size based on the error rate; and

the plurality of UDP/IP packets size equal to the PPP packet size.

In an analogous art, McDermott discloses:

determining an error rate (figure 5A, reference 120, page 7 lines 51-53);

determining a PPP packet size based on the error rate (page 2, col. 2 lines 18-21 and page 5 col. 8 lines 9-13); and

the plurality of UDP/IP packets size equal to the PPP packet size (page 4, col. 6 lines 39-44).

McDermott discloses further wherein the step of determining the error rate comprises the step of determining a bit error rate (BER) (page 2, col. 2 lines 18-21 and page 5 col. 8 lines 9-13 as set forth in claim 9).

One skilled in the art would have recognized an error rate of a transmission to use the teachings of McDermott in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Sen et al.'s system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

However, Sen et al. in view of McDermott do not disclose wherein the step of determining the PPP packet size comprises the step of determining an optimal number of UDP/IP packets that can be multiplexed onto a single PPP packet. In an analogous art, Szabo discloses wherein the step of determining the PPP packet size comprises the step of determining an optimal number of UDP/IP packets that can be multiplexed onto a single PPP packet (page 1, col. 1 lines 49-51).

Szabo discloses further wherein the step of multiplexing the plurality of UDP/IP packets onto the PPP packet comprises the step of utilizing PPPmuxing techniques to

multiplex the plurality of UDP/IP packets onto the PPP packet (page 1, col. 1 lines 49-51 as set forth in claim 11).

For claim 8, Sen et al. disclose wherein the step of receiving the plurality of UDP/IP packets comprises the step of receiving the plurality of UDP/IP packets from a plurality of remote or mobile users (figure 1, reference 11 a-c, col. 3 lines 23-26).

For claims 12-14, Sen et al. disclose method and system for limiting data packet transmission within a digital mobile telephone communication network by discarding unsuccessfully transmitted radio link protocol frames, comprising the steps of:

a plurality of higher layer packet as an input (figure 2, reference 21, col. 3 lines 23-26); and

multiplexing the plurality of higher-layer packets onto a lower-layer packet (figure 2, reference 23) (col. 3 lines 25-30).

Sen et al. do not disclose: a packet error estimator outputting a transmission error rate; and a multiplexer having the transmission error rate as an input, determining a lower-layer packet size based on the transmission error rate; wherein the lower-layer packet has a size equal to the lower-layer packet size. In an analogous art, McDermott discloses: a packet error estimator outputting a transmission error rate (figure 5A, reference 120, page 5, col. 7 line 53); and a multiplexer (figure 4, reference 94) having the transmission error rate as an input (page 4, col. 6 lines 30-44), determining a lower-layer packet size based on the transmission error rate (page 2, col. 2 lines 18-21 and page 5 col. 8 lines 9-13); wherein the lower-layer packet has a size equal to the lower-layer packet size (page 4, col. 6 lines 39-44).

McDermott discloses further discloses wherein the transmission error rate is bit error rate (BER) (page 2, col. 2 lines 18-21 and page 5 col. 8 lines 9-13 as set forth in claim 14).

One skilled in the art would have recognized a packet error estimator outputting a transmission error rate use the teachings of McDermott in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the error rate of a transmission as taught by McDermott in Sen et al.'s system with the motivation being to provide a system that transmits image data or any other type of data in packets by RF carrier where the packet size is adjusted responsive to bit error rate (page 7 lines 7-10).

However, Sen et al. in view of McDermott do not disclose wherein determining the lower-layer packet size comprises determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet. In an analogous art, Szabo discloses disclose wherein determining the lower-layer packet size comprises determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet (page 1, col. 1 lines 49-51).

Szabo discloses further wherein the multiplexer is a PPP multiplexer performing PPPmuxing (page 1, col. 1 lines 49-51 as set forth in claim 13).

One skilled in the art would have recognized wherein determining the lower-layer packet size comprises determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet to use the teachings of Szabo in the system of Sen et al. Therefore, it would have been obvious to one of ordinary skill in the

art at the time of the invention, to use the determining the lower-layer packet size comprises determining an optimal number of higher-layer packets that can be multiplexed onto a single lower-layer packet as taught by Szabo in Sen et al.'s system with the motivation being transmitted over an IP core network (page 1, col. 1 lines 50-51).

For claim 15, Sen et al. disclose wherein the higher-layer packets comprise UDP/IP packets (figure 2, reference 21, col. 3 lines 23-27).

For claim 16, Sen et al. disclose wherein the lower-layer packet comprises a PPP packet (figure 2, reference 22, col. 3 lines 23-27).

Response to Arguments

4.   Applicant's arguments with respect to claims 1-4, 6-9 and 11-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6.   Applicant's amendment on September 03, 2004 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any
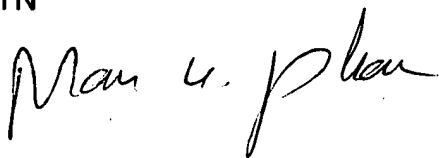
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Toan D Nguyen whose telephone number is 571-272-

3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

TN
TN

MAN U. PHAN
PRIMARY EXAMINER